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focusing means for focusing the light projected through the scrolling film by said light projecting means and shifted by said light path shifting means, so as to project a scrolling image formed by a pattern on the scrolling film, said focusing means comprising a lens slidably secured to said mounting means and performing focusing by varying the distance between said lens and the film.

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REMARKS

In view of the above amendments, and the following remarks, Applicant requests favorable reconsideration of the above-identified application.

Claims 1, 3, 5-7, 9-15 and 17-20 are now pending in this application, with Claims 1, 14 and 20 being independent. By this Amendment, Applicant has canceled Claims 2, 4, 8 and 16, and amended the specification and Claims 1, 5, 9-11, 14, 17 and 20. No new matter has been added.

The drawings stand objected to under 37 C.F.R. § 1.84(p)(5). Accompanying this Amendment is a Request for Approval to Amend the Drawings in which Applicant proposes to amend Figure 4 as suggested in the Office Action. Accordingly, Applicant requests withdrawal of the objection under 37 C.F.R. § 1.84(p)(5).

In addition, the drawings and specification have been objected to because the description of the invention does not explain each figure individually, without reference to other figures. While Applicant notes that such a format is not required, Applicant has amended the specification to make the description of the invention even more clear with respect to the references to the drawings.

Claim 13 stands rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter not adequately described in the specification. The Office Action also states Claim 13 contradicts Claim 12, from which it depends. Applicant traverses this rejection.

Applicant respectfully notes that Claim 13 does not depend from Claim 12, but rather from Claim 11. In addition, the subject matter recited in Claim 13 is supported in the specification at least at page 22, paragraph 0063. Accordingly, Applicant requests withdrawal of the rejection under § 112.

Claims 1 and 20 stand rejected under 35 U.S.C. § 102 over U.S. Patent No. 3,897,144 (Hicks). Claims 2-19 stand rejected under 35 U.S.C. § 103 over the Hicks patent in further view of U.S. Patent No. 2,811,892 (Holloway). Applicant traverses these rejections.

As recited in independent Claims 1 and 14, Applicant's invention is generally directed to an image projector having a film assembly, a motor, a light source and a lens. The film assembly includes a periscope having a first aperture, and is configured so as to mount a continuous film to scroll in front of the first aperture. The motor is for scrolling the film. The light source projects light through the portions of the film positioned in front of the first aperture. The lens focuses the light projected through the film and the periscope. The film assembly and the lens are slidably secured to each other such that a distance along the light path between the lens and the film mounted on the film assembly is variable. Focusing of a projected image is performed by varying the distance between the lens and the film.

As recited in independent Claim 20, Applicant's invention is directed to an image projector having mounting means, light projecting means, light path shifting means, scrolling means and focusing means. The mounting means mounts a continuous film. The focusing means is for focusing light projected through the film by the light projecting means so as to project a scrolling image formed by a pattern on the film. The focusing means comprises a lens slidably secured to the mounting means and performs focusing by varying the distance between the lens and the film.

The Hicks patent is directed to a navigational apparatus in which a film strip is moved across a light path to project a map on a screen. Applicant submits, however, that the Hicks patent does not describe a continuous film that scrolls about a periscope. In addition, that patent does not describe a lens slidably secured to a film assembly or mounting means so as to perform focusing.

The Holloway patent is directed to a projector for projecting the score and timing of a bowling game on a screen. While that patent does describe a continuous film, that film scrolls around a lens in the projector. Consequently, the lens is not slidably secured to the film assembly, and the distance between the lens and film does not vary to adjust focusing.

Accordingly, Applicant submits that the Hicks and Holloway patents, taken alone or in combination, fail to disclose or suggest at least the features of (i) a film assembly and lens slidably secured to each other such that a distance along a light path between the lens and a film mounted on the film assembly is variable, with focusing of a projected image from the film being performed by varying the distance between the lens and the film, as recited in independent Claims 1 and 14; and (ii) focusing means for

focusing light projected through a scrolling film by light projecting means and shifted by light path shifting means, so as to project a scrolling image formed by a pattern on the scrolling film, with the focusing means comprising a lens slidably secured to mounting means mounting the film and performing focusing by varying the distance between the lens and the film, as recited in independent Claim 20.

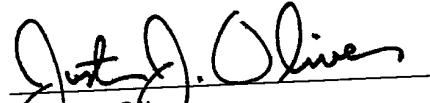
For the foregoing reasons, Applicant submits that the independent claims are allowable over the applied patents, and requests withdrawal of the rejections under §§ 102 and 103.

The remaining claims in the present application are dependent claims which depend from the independent claims, and thus are patentable over the documents of record for the reasons noted above with respect to those independent claims. Further, each recites features of the invention still further distinguishing it from the applied document. Therefore, Applicant requests favorable and independent consideration thereof.

Applicant believes that all outstanding matters in this application have been attended to, and that the application is in condition for allowance. Accordingly, Applicant requests a notice thereof.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Justin J. Oliver", written over a horizontal line.

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**VERSIONS WITH MARKINGS TO SHOW
THE CHANGES MADE TO THE SPECIFICATION**

Please amend paragraph 0030, as follows.

--Wires 70 extend from the socket 76 through the power cord 16 (shown in Fig. 1) so as to provide an electrical connection between the bulb 74 and a power source when the power cord 16 is connected to the power source.--

Please amend paragraph 0033, as follows.

--The back wall 22 is secured to the housing 12 by thumb screws (not shown) that thread in through a side of the housing 12. A securing plate 64, shown in Fig. 6, is situated between the back wall 22 and the plate 72, and is secured to the posts 66. Consequently, the securing plate 64 is positioned within the housing 12 when the back wall 22 is mounted thereon. When fully assembled, the thumb screws are secured in the side of housing 12 (shown in Fig. 1) to extend in a direction substantially perpendicular to the lengths of posts 66 such that the tips of the thumb screws are positioned between the back wall 22 and the securing plate 64. Accordingly, the thumb screws restrict the movement of the back wall 22 and the securing plate 64 to secure the back wall 22 in the opening 15. Alternatively, the back wall 22 may be connected to the housing 12 by other

configurations. Also, the light source 78 may be accessed by structures other than the removable back wall 22.--

Please amend paragraph 0038, as follows.

--[When] As shown in Fig. 1, when mounted, the front wall 24 preferably is secured to the housing 12 by a thumb screw (not shown). The thumb screw is screwed into the side of the housing 12 such that the tip of the screw 115 is positioned between the front wall 24 and the plate 54 (as shown in Fig. 4). Similarly to the thumb screw used to secure the back wall 22, this thumb screw restricts the movement of the combined structures of the front wall 24 and the plate 54 in directions parallel to the light path. However, other configurations may be used to secure the front wall 24 to the housing 12. Alternatively, the workings of the image projector 10 may be accessed by structures other than the removable front wall 24. Consequently, the plate 54 is not necessary in all embodiments of the present invention, and the design of the image projector may be varied to include structures other than the plate 54.--

Please amend paragraph 0040, as follows.

--[A] As shown in Fig 1, a free end of the post 60 projects through the hole 61 in the front wall 24 and is positioned outside of the housing 12[, as shown in Fig. 1]. To prevent the free end of the post 60 from sliding completely into the housing 12 through the front wall 24, the other free end of the post 60 is secured to the film assembly 36. The post may be secured to the film assembly 36 by any conventional means. In the present embodiment, the post 60 extends through a hole in the film assembly 36 and screws (not shown) are positioned in the post 60 on both sides of the hole so as to prevent the sliding of the post 60 through the hole passed the restricting screws along the length thereof. Thus configured, moving the free end of the post 60 positioned outside the housing 12 adjusts the position of the film assembly 36 in the housing 12, as is discussed in more detail below. Of course, the post 60 may be secured to the film assembly 36 by numerous other conventional means.--

Please amend paragraph 0041, as follows.

--[Rigidly] As shown in Fig. 4, rigidly secured to the plate 54 is a support 37, which extends away from the plate 54 so as to be substantially parallel to the light path and substantially perpendicular to plate 54. When the front wall 24 is mounted on the

housing 12, the support 37 extends into the housing 12. Preferably, the support 37 includes a pair of slots 38, which define openings through the support 37 and extend in directions substantially perpendicular to plate 54. On the upper face of the support 37 there is formed a track 39, which is positioned between the slots 38 and extends in directions substantially parallel thereto.--

Please amend paragraph 0047, as follows.

--In embodiments where the film 33 is loop shaped, it is preferable that the film be mounted about a number of rollers 40 (i.e., posts or spools) secured in the film assembly 36, as shown in Fig. 3. It is preferred that the rollers 40 are pivotably mounted in the film assembly 36 so as to rotate with the film 33. More specifically, in the depicted embodiment, as shown in Fig. 9, four rollers 40 are pivotably mounted in the film assembly 36 so as to rotate about axes substantially parallel with each other and substantially perpendicular to the light path. In the present embodiment, the axes are defined by pins (not shown) secured in the film assembly 36, on which the rollers 40 are mounted. The direction of rotation of the rollers 40 is shown by arrow B in Fig. 9.--

Please amend paragraph 0058, as follows.

--In the present embodiment, the film 33 is scrolled around the rollers 40 such that the film moves across a frame 140, shown in Fig. 4. The frame 140 defines an opening through which the light from the light source 78 is projected. The frame 140 may control the amount of light in the light path, thus acting as an optical stop. The images on the film 33 which pass across the light path and across the opening of the frame 140 are projected passed the frame 140, and ultimately form the projected image. Although the frame 140 is not necessary for the present invention, it is preferable to control the boundaries of the projected image.--

Please amend paragraph 0068, as follows.

--In preferred embodiments, a light filter 190 (shown in Fig. 7) may be provided between the bulb 74 and the film assembly 36, such that light from the bulb 74 is filtered before reaching the films 33 and 35. The filter 190 may be combined with the light source 78 or positioned on its own within the housing 12. When positioned on its own, the filter may be mounted on a partition 192 within the housing 12, such that the partition 192 only allows light passing through the filter 190 to reach the film assembly 36. The filter

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190 may be used to reduce glare that could affect the projected image, and preferably is a polarized UV filter.--

**VERSIONS WITH MARKINGS TO SHOW
THE CHANGES MADE TO THE CLAIMS**

1. (Amended) An image projector, comprising:

a film assembly comprising a periscope having a first aperture, said film assembly being configured so as to mount a continuous film to scroll in front of said first aperture of said periscope;

a motor for scrolling the film around said periscope and in front of said first aperture;

a light source projecting light through said periscope and portions of the film positioned in front of said first aperture of said periscope; and

a lens for focusing the light projected through the film and said periscope,

wherein said film assembly and said lens are slidingly secured to each other such that a distance along the light path between said lens and the film mounted on said film assembly is variable, and focusing of an image on the film projected by said image projector is performed by varying the distance between said lens and the film.

5. (Amended) An image projector according to Claim [4] 3, wherein one of said plurality of rollers is rotated by said motor, causing the film, when mounted, to scroll about the rollers in directions substantially perpendicular to the axes of rotation of said rollers.

9. (Amended) An image projector according to Claim [8] 5, further comprising a housing containing said film assembly, said lens, said motor and said light source, wherein said light source and said lens are secured in said housing; and means for varying the position of said film assembly with respect to said lens and said housing.
10. (Amended) An image projector according to Claim [8] 5, wherein said motor is mounted on said film assembly.
11. (Amended) An image projector according to Claim [4] 3, wherein said periscope further comprises a first mirror, a second mirror, and a second aperture.
14. (Amended) An image projector, comprising:
a film assembly comprising a periscope and a plurality of rotatably mounted rollers, said plurality of rollers mounting a continuous film so as to scroll about said periscope, in directions substantially perpendicular to axes of rotation of said rollers, such that portions of the film pass in front of a first aperture of said periscope;
a motor for rotating at least one of said rollers so as to cause the film to scroll around said periscope;

a light source projecting light through (i) the portions of the film positioned in front of said first aperture, as the film scrolls past said first aperture and across the light path, and (ii) through said periscope; and

a lens for focusing the light projected through the film and said periscope,

wherein said film assembly and said lens are slidingly secured to each other such that a distance along the light path between said lens and the film mounted on said film assembly is variable, and focusing of an image on the film projected by said image projector is performed by varying the distance between said lens and the film.

17. (Amended) An image projector according to Claim [16] 14, further comprising a housing containing said film assembly, said lens, said motor and said light source, wherein said light source and said lens are secured in said housing[;], and the position of said film assembly is variable with respect to [means for varying the position of said film assembly with respect to] said lens and said housing.

20. (Amended) An image projector, comprising:

mounting means for mounting a continuous film;

[scrolling means for scrolling the film mounted on said mounting means;]

light projecting means for projecting light through portions of the film mounted on said mounting means [and scrolling across the light path];

light path shifting means for shifting the light path of the light projected by said light projecting means before or after the light has been projected through the portions of the scrolling film; [and]

scrolling means for scrolling the continuous film mounted on said mounting means around said light path shifting means and across the light path of said light projecting means; and

focusing means for focusing the light projected through the scrolling film by said light projecting means and shifted by said light path shifting means, so as to project a scrolling image formed by a pattern on the scrolling film, said focusing means comprising a lens slidably secured to said mounting means and performing focusing by varying the distance between said lens and the film.